# JOB DESCRIPTION

| | | | | | |
|---|---|---|---|---|---|
| **JOB TITLE** | Systems Architect | | | | |
| **DEPARTMENT** | ICT | | | | |
| **JOB NUMBER** | | **GRADE** | 7 | **DATE** | |
| **REPORTS TO** | Enterprise Architect | | | | |

| **CONTEXT** |
|---|
| |

| **JOB PURPOSE** |
|---|
| The role sits within the PMO & Enterprise Architecture team and its works underpins the whole department strategy. The post holder will work within a team that is responsible for the creation and maintenance of structures such as enterprise and business architectures embodying the key principles, methods and models that describe the organisation's future state, and that enable its evolution.<br><br>The team will be responsible for the interpretation of business goals and drivers; the translation of business strategy and objectives into an “operating model”; the strategic assessment of current capabilities; the identification of required changes in capabilities; and the description of inter-relationships.<br><br>The investigation, analysis, review and documentation of all or part of a business in terms of business functions and processes, the information used and the data on which the information is based. The definition of requirements for improving processes and systems, reducing their costs, enhancing their sustainability, and the quantification of potential business benefits.<br><br>The investigation, evaluation, interpretation and classification of data, in order to define and clarify information structures which describe the relationships between entities. Such structures facilitate the development of software systems and links between systems.<br><br>The specification and design of information systems integration to meet defined business needs. The identification of requirements and their translation into implementable design. The retention of compatibility with enterprise and solution architectures, and the adherence to standards. The integration and testing of components and/or subsystems and their interfaces in order to create operational services<br><br>**Autonomy**<br>Works under broad direction. Work is often self-initiated. Is fully accountable for meeting allocated technical and/or project/supervisory objectives. Establishes milestones and has a significant role in the delegation of responsibilities.<br><br>**Influence**<br>Influences organisation, customers, suppliers, partners and peers on the contribution of own specialism. Builds appropriate and effective business relationships. Makes decisions which impact the success of assigned projects i.e. results, deadlines and budget. Has significant influence over the allocation and management of resources appropriate to given assignments. This role is expected to be a role model to others across the department. |

**Complexity**
Performs an extensive range and variety of complex technical and/or professional work activities. Undertakes work which requires the application of fundamental principles in a wide and often unpredictable range of contexts. Understands the relationship between own specialism and wider customer/organisational requirements.

**Business Skills**
Advises on the available standards, methods, tools and applications relevant to own specialism and can make appropriate choices from alternatives. Analyses, designs, plans, executes and evaluates work to time, cost and quality targets. Assesses and evaluates risk. Communicates effectively, both formally and informally. Demonstrates leadership. Facilitates collaboration between stakeholders who have diverse objectives. Understands the relevance of own area of responsibility/specialism to the employing organisation. Takes customer requirements into account when making proposals. Takes initiative to keep skills up to date. Mentors colleagues. Maintains an awareness of developments in the industry. Analyses requirements and advises on scope and options for continuous operational improvement. Demonstrates creativity and innovation in applying solutions for the benefit of the customer/stakeholder. Takes account of relevant legislation.

## KEY RESPONSIBILITIES

### SERVICE MANAGEMENT

Takes accountability of a significant service area to deliver a professional service including:

- Taking management responsibility for a complete IT function, planning and co-ordinating activity to deliver on objectives. Setting of service levels targets; analysis of data to inform decision making & Continual Service Improvement measures
- Contributes significantly to the strategy for overall budgetary control of services, including where applicable, charging of IT resources and services; tracks actual costs against predicted costs.
- Contributes significantly to contract development and negotiation with third party suppliers.
- Change Management; co-ordinates the preparation of proposals for substantial changes, including both technical and commercial assessments. Responsible for ensuring that all changes within area of responsibility are carried out under the ICT change process.
- Problem Management; Analyses incidents and problems, and determines trends, initiating preventive action, to minimise the likelihood of recurrence.
- Asset recording and full lifecycle management
- Ensure that the necessary processes and procedures are in place to maintain or recover the delivery of services in the event of major incident

### IT OPERATIONS

Carries out complex operations that include:

- Diagnosis and resolution of issues with user devices, applications and ICT infrastructure components
- Monitoring, logging and reporting tasks. Performs analysis of data to identify potential issues and gathers service level information.
- Responds to enquiries by users and ICT colleagues and is able to deal effectively with a broad range of problems of a complex nature and also advise in one or more area of specialism.
- Conducts investigations of operational problems, makes proposals for effective improvement, and implements them when appropriate.
- Supervises installation and maintenance work associated with the assets within own service areas; ensuring that procedures are followed.

## APPLICATION SUPPORT & SYSTEM DEVELOPMENT

For all products, services and systems within the area of responsibility:

- Provides detailed personal advice and guidance to all users in the effective use of systems, products and services, investigating complex problem situations to diagnose underlying causes and helping users to recover or continue operation.
- Ensures that requests for support are properly logged, assigned and responded to in a timely manner and according to agreed standards and procedures.
- Ensures that that adequate documentation for the applications supported is available and kept up to date and monitors and manages performance of the applications against published service level agreements. Takes full responsibility for its effectiveness and takes action to remedy deficiencies.
- Reviews and accepts releases, upgrades and fixes available for system and identifies those which merit action. In consultation with users, demonstrates all features, install plans and commissions' systems, products and services and their upgrades.
- In a specified area of authority, works with business management to define projects which support the organisation's objectives and strategic plans. Initiates action, by systems development staff or software suppliers, on the development of system enhancements to overcome known problems or further fulfil user requirements.
- Working with users, monitors and reports on the progress of implementation projects, using appropriate quality assurance processes to ensure that projects are carried out in accordance with the University's agreed standards, methods and procedures.
- Ensures that system projects take full account of and, where necessary, correctly interface with existing systems and infrastructure. Advises management of significant developments with regard to existing and emerging system software.
- Leads the establishment and maintenance of the University's ICT standards, methods and procedures. Ensures all work is carried out and documented in accordance with these standards, methods and procedures.
- Provides advice and guidance to less experienced colleagues where required and responds to wide-ranging and detailed questioning in own area(s) of specialisation.

## DESIGN & DOCUMENTATION

Takes a leading technical role and responsibility for the below areas:

- Investigates work to determine business opportunities and specify effective business processes. Specifies their implementation through improvements in systems, data management, practices, organisation and equipment.
- Assesses software packages on their ability to meet all or parts of specified requirements and advises colleagues and management on their technical suitability.
- In consultation with senior management and taking account of enterprise and solutions architectures agrees appropriate design standards, methods and tools and ensures they are applied effectively.
- Specifies and designs large or complex systems, covering for example: objectives, scope, constraints (such as performance, resources etc.), hardware, network and software environments, main system functions and information flows, data load and implementation strategies, phasing of development and alternatives considered.
- Takes a leading technical role in consultation with other technical specialists, and users, develops integration plans, to ensure the effective and efficient integration of system components.
- Provides expert advice, both reactively and pro-actively, to those engaged in activities where the technical specialism is applicable within IT and related areas such as budgetary and financial planning, legislation, and health and safety.
- Accountability for the provision of quality assurance of activities involving the technical specialism.
- Applies available standards, methods and tools in an intelligent and effective way, and produces a consistently high standard of operational documentation of both a technical and a descriptive nature.
- Provides advice and guidance to systems development and service delivery staff on the correct and effective use of system software.

## PROJECT MANAGEMENT

Takes responsibility for the execution of large complex projects covering:

- Effective leadership to the project team ensuring that team members are motivated and developing their skills and experience.

- Actively represents the project team, ensuring that effective relationships are built and maintained with the business.
- Carries out business impact assessment, to determine how changes from the current to the future processes and structures will affect business units and roles.
- Evaluates and makes recommendations/decisions on options as appropriate.
- Identifies, assesses and manages risks to the success of the project.
- Monitors outcomes against what was predicted in the business case and ensures that all participants are informed and involved throughout the change and fully prepared to exploit the new operational business environment once it is in place.
- Financial control and management of all elements of the project and the delivery of the agreed financial targets.
- Ensures that realistic project plans are prepared and maintained and tracks all activities against the plan, providing regular and accurate reports to stakeholders, as appropriate.
- Ensures that own projects are formally closed and, where appropriate, subsequently reviewed, and that lessons learned are captured and actioned.
- Develops, reviews and maintains project and programme management support strategy, and generic standards, processes, procedures, tools and techniques.

**SECURITY ADMINISTRATION**

Within area of accountability:

- Maintains knowledge and awareness of ICT Security policies & procedures and general data security legislation & regulations; always acting within these.
- Provides advice and handles most enquiries relating to most information security requests, referring to more senior staff for assistance.
- In consultation with senior security personnel, devises and documents new or revised procedures relating to security control of areas of responsibility, systems, products or services.
- Monitors the application and compliance of security operations procedures, and reports on non-compliance. Reviews information systems for actual or potential breaches in security, and investigates violations.
- Assists in the review and maintenance of policy, standards, procedures and documentation for security administration, taking account of current best practice, legislation and regulation.
- Recognises requirements for, and creates, auditable records, user documentation and security awareness literature for area of responsibility.

**TEAM LEADERSHIP**

- Carry out all administration and compliance requirements associated with the line management of individuals and to contribute to the tactical, operational and strategic resourcing requirements of the department as a whole.
- Consideration of individual welfare and pastoral care, including appraisal, training, development, disciplinary and performance management.
- Ensure effective bi-directional communication between team members and management
- To support, motivate and enthuse staff within own team. Act as a role model for others in the department exhibiting appropriate behaviours and demonstrating 'xxxx'.

**PERSONAL DEVELOPMENT**

Develops and maintains knowledge and communicates the technical specialism by:

- Reading relevant literature and attending training.
- Attending conferences and seminars, meeting and maintaining contact with others involved in the technical specialism and through taking an active part in appropriate professional and trade bodies.
- Maintains an awareness of current developments in broad technical areas and takes significant responsibility for own personal development.
- Provides specialist guidance and advice to less experienced colleagues and users to ensure that work is conducted in an appropriate manner.

**COMMUNICATION & PERSONAL NETWORKS**

- Contributes to user groups, or specialist subject groups on topics involving the technical specialism presenting highly technically complex concepts in a clear, jargon free, accessible manner.
- Communicates well, both orally and in writing, and responds to wide-ranging and detailed questioning relating both to own areas of specialisation and, at a more general level, to the wider field of IT both orally and in writing.
- Promotes the service within the University and creates strong personal relationships with the full range of stakeholders.
- Liaises with HE sector and external organisations and key suppliers to share ideas, compare approaches and develop best practice.

**In addition to the above, undertake such duties as may reasonably be requested and that are commensurate with the nature and grade of the post.**

## ADDITIONAL INFORMATION

| Scope and Dimensions of the Role |
|---|
| Post holder will work flexibly, independently of location, in order to deliver on objectives. |

| Key Working Relationships/Networks | |
|---|---|
| **Internal** | **External** |
| • ICT Senior Management<br>• ICT teams<br>• College staff (research, academic and administrative)<br>• Professional service staff<br>• Student Union<br>• Students | • Key Suppliers and Commercial Partners<br>• Other institutions<br>• Sector bodies (UCISA/JISC)<br>• Relevant professional bodies<br>• Represents the University at appropriate forums and makes a positive contribution to relevant sector/industry groups. |

## PERSON SPECIFICATION

| JOB TITLE | Systems Architect | JOB NUMBER | |
|---|---|---|---|

| Selection Criteria | Essential (E) or Desirable (D) | Where Evidenced Application (A) Interview (I) Presentation (P) References (R) |
|---|---|---|
| **Qualifications:** | | |
| Educated to degree level or equivalent experience | **E** | **A,I** |
| Industry qualifications | **D** | **A,I** |
| Membership of relevant professional bodies | **D** | **A,I** |
| **Experience:** | | |
| Solution design within a Service Oriented Architecture | **E** | **A,I** |
| Data architecture, analysis, modelling and management, including Master Data Management | **E** | **A,I** |
| Managing and coordinating the use of an Enterprise Service Bus including adapters, orchestrations and API's. | **E** | **A,I** |
| Other middleware tools and technologies | **E** | **A,I** |
| Proven record of delivering results within a given timescale | **E** | **A,I** |
| Experience of providing sound design solutions to complex issues | **E** | **A,I** |
| Experience of working in a large, challenging multi-site environment | **E** | **A,I** |
| Experience of working within large complex programmes and projects | **D** | **A,I** |
| Experience of managing multi-disciplined teams including line management | **D** | **A,I** |
| Knowledge of the HE sector | **D** | **A,I** |
| **Skills and Knowledge:** | | |
| A detailed understanding of data models that support complex data management solutions | **E** | **A,I** |
| A deep technical understanding of data sharing, integration and transfer between systems, including ETL, data warehousing and Master Data Management lifecycle and technologies | **E** | **A,I** |
| Excellent problem analysis and creative solving skills | **E** | **I** |
| Understanding emerging technology trends | **E** | **A,I** |
| Excellent written and verbal communication skills | **E** | **A,I,P** |
| Skills in Enterprise and Data Architecture modelling tools, techniques and languages and related technologies | **D** | **A,I** |
| A good knowledge of Enterprise Service Bus management and technologies | **D** | **A,I** |
| Project Management skills | **D** | **A,I** |
| Supplier Relationship Skills | **D** | **A,I** |
| Knowledge of service delivery frameworks and methodologies | **D** | **A,I** |
| Relevant issues, developments and trends within the education sector | **D** | **I** |
| **Competencies and Personal Attributes:** | | |
| Credibility and integrity | **E** | **I,R** |

| | | |
|---|---|---|
| Positive and open in communication both verbal and written | **E** | **I,R** |
| Initiative and confidence | **E** | **I,R** |
| Analytical in approach to acquiring knowledge and information | **E** | **I,R** |
| Collaborative, able to build working networks | **E** | **I,R** |
| Commitment to service quality whilst adhering to internal procedure | **E** | **I,R** |

**Essential Requirements** are those, without which, a candidate would not be able to do the job. **Desirable Requirements** are those which would be useful for the post holder to possess and will be considered when more than one applicant meets the essential requirements.